

REMARKS

I. General

Claims 1-37 were pending in the present application, and all of the pending claims are rejected in the current Office Action (mailed February 24, 2006). The outstanding issues raised in the current Office Action are:

- Claims 1-5, 8-22, and 26-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,620,205 issued to Sequeira (hereinafter “*Sequeira*”) in view of U.S. Patent No. 6,976,165 issued to Carpentier et al. (hereinafter “*Carpentier*”) and further in view of U.S. Patent No. 6,839,680 issued to Liu et al. (hereinafter “*Liu*”);
- Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of U.S. Patent No. 6,834,110 issued to Marconcini et al. (hereinafter “*Marconcini*”); and
- Claims 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of U.S. Patent No. 6,820,133 issued to Grove et al. (hereinafter “*Grove*”).

As set forth below, Applicant respectfully traverses the outstanding claim rejections, and requests reconsideration and withdrawal thereof in light of the remarks presented herein.

II. 35 U.S.C. § 103 Rejections over *Sequeira* in view of *Carpentier* and *Liu*

Claims 1-5, 8-22, and 26-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and further in view of *Liu*. Applicant respectfully traverses these rejections as discussed further below.

To establish a *prima facie* case of obviousness, three basic criteria must be met. *See* M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of the ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the applied references must teach or suggest all the claim limitations. Without conceding any other criteria, Applicant respectfully asserts that the rejection is improper as there is insufficient motivation to combine the applied references and

the applied combination thereof fails to teach or suggest all the claim limitations, as discussed further below.

Independent Claim 1

Independent claim 1 recites:

A method for content delivery, comprising:
requesting a piece of content;
delimiting the piece of content into one or more portions at a source;
associating an identifier with a selected one of the one or more portions
of the content, said identifier computed from the selected one of the one or
more portions of the content;
sending the identifier to a destination; and
looking up the identifier at the destination and, if the identifier is
found, retrieving the associated portion of content at the destination and, if the
identifier is not found, receiving the associated portion of content from the
source. (Emphasis added).

A. Applied Combination Fails to Teach or Suggest All Elements of Claim 1

The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest all the above elements of claim 1. For instance, the combination fails to teach or suggest associating an identifier with a selected one of the one or more portions of the content where the identifier is computed from the selected one of the one or more portions of the content. The combination further fails to teach or suggest looking up the identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source, as discussed further below.

The Office Action appears to assert that because *Sequeira* serves a web page, such web page coded in Hypertext Markup Language (HTML) is delimited into one or more portions at the server before transmission and display by a browser, *see* pages 4-5 of the Office Action. In this regard, the Office Action appears to assert that use of HTML, by its very nature, delimits a web page into one or more portions. HTML is used to create a “source” document for a web page that may contain textual content, image content, links to other documents, etc. The HTML source document contains formatting instructions that are interpretable by a browser to display the web page (e.g., to arrange the textual content, image content, etc. on the screen in a manner defined by the HTML source document).

In general, when a browser executing on a client requests a web page from a web server, the browser is first sent the HTML source document for the requested web page. The HTML source document describes, in a language understandable by the browser, the various elements (e.g., images, etc.) of the web page and an arrangement of such elements (e.g., in which order to display the images, etc. in the web page). The HTML source code includes “tags” that identify the various elements (e.g., image files, etc.) that are to be presented on the web page. The web server also sends the elements (image files, etc.) to the client, and the browser executing on the client displays the elements in the arrangement dictated by the HTML source document.

To the extent that an HTML source document is considered as delimiting content into one or more portions, it does not teach or suggest “associating an identifier with a selected one of the one or more portions of the content” where the identifier is computed from the selected one of the one or more portions of the content. To the extent that a referenced filename (e.g., image file) is included in a HTML source document, for example, such filename is not computed from the content. Indeed, the content of the file may change and the filename remains the same.

The Office Action concedes that nothing in *Sequeira* or *Liu* teaches or suggests use of an identifier that is computed from a portion of content. However, the Office Action asserts that *Carpentier* teaches computing such an identifier. As discussed hereafter, *Carpentier* teaches using an algorithm, such as MD5, to generate an intrinsic unique identifier (IUI) for a file. For instance, the abstract of *Carpentier* provides:

An algorithm (such as the MD5 hash function) is applied to a file to produce an intrinsic unique identifier (IUI) for the file (or message digest). The file is encrypted using its IUI as the key for the encryption algorithm. An algorithm is then applied to the encrypted file to produce an IUI for the encrypted file. The encrypted file is safely stored or transferred within a network and is uniquely identifiable by its IUI. The encrypted file is decrypted using the IUI of the plaintext file as the key. The IUI serves as both a key to decrypt the file and also as verification that the integrity of the plaintext file has not been compromised. IUIs for any number of such encrypted files may be assembled into a descriptor file that includes meta data for each file, the IUI of the plaintext file and the IUI of the encrypted file. An algorithm is applied to the descriptor file to produce an IUI for the descriptor file. The plaintext descriptor file is then encrypted using the descriptor file IUI as a key for the encryption algorithm. An algorithm is applied to the encrypted descriptor file

to produce an IUI for the encrypted descriptor file. The IUI of the encrypted descriptor file is a location-independent identifier to locate the encrypted descriptor file. A flattened descriptor file includes the IUIs of encrypted data files and the IUI of the encrypted descriptor file. An algorithm is applied to the flattened descriptor file to produce its own IUI.

Thus, *Carpentier* describes that an algorithm, such as MD5, is known for creating a unique identifier of a file based on the file's contents. Indeed, the present application describes that such algorithms are known. For instance, page 9, lines 1-6 of the present application provides:

The identifier for a content portion should be [the] same each time the identical content portion is sent by the source 114 to ensure that only one table 110 entry is formed the content. Further, the different identifiers should be assigned to different portions of content data to ensure that unintended data is not retrieved from the table 110. Known hash functions, such as MD-5 and SHA-1, have these properties.

However, use of such identifiers associated with portions of requested content to determine those portions of the content that are available locally (e.g., in cache) in a client and those portions that are not available locally, as described in the present application, is not taught or suggested in the prior art. As the Office Action concedes, neither *Sequeira* nor *Liu* teach or suggest associating an identifier associated with a selected portion of content, where the identifier is computed from the selected portion of content. Further, neither *Sequeira* nor *Liu* teach or suggest looking up such an identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source, as *Sequeira* and *Liu* simply provide no teaching of any use of such an identifier that is computed from a portion of content. While *Carpentier* teaches that a unique identifier may be computed for a file using an algorithm, such as MD5, *Carpentier* also provides no teaching or suggestion of using the computed identifier for looking up such an identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source. Thus, the combination of the references fails to teach or suggest all elements of the claimed invention.

Accordingly, the applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest all elements of claim 1, as neither reference teaches or suggests using a unique identifier associated with a portion of content for performing the recited “looking up”.

The Office Action essentially relies upon a first reference, *Sequeira*, for teaching an HTML source document that has a plurality of elements of a web page. The Office Action further relies upon *Liu* as teaching that a document may be searched for in a memory cache. The Office Action finally relies upon *Carpentier* as teaching that an algorithm, such as MD5, can be used to generate a unique identifier for a file based on the file’s content. Applicant concedes that these disparate elements are known. However, as discussed above, the combination of the disparate elements fails to teach or suggest the whole of independent claim 1. For instance, no teaching or suggestion of creating IUIs for the respective portions of an HTML source document is provided. Moreover, no teaching or suggestion of using IUIs for performing the recited “looking up” is provided.

In view of the above, claim 1 is not obvious under 35 U.S.C. § 103(a) over the combination of *Sequeira*, *Carpentier*, and *Liu* because the combination fails to teach or suggest all elements of claim 1.

B. Lack of Motivation to Combine the References in the Manner Applied

Further, the mere fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness, *see* M.P.E.P. § 2143.01. Rather, it is well settled that the prior art must suggest the desirability of the claimed invention, *see* M.P.E.P. § 2143.01. “There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination” and “[t]hat knowledge can not come from the applicant’s invention itself.” *In re Oetiker*, 977 F.2d 1443, 1447, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992). It is insufficient to prove that at the time of the claimed invention, the separate elements of the device were present in the known art. Rather, there must have been some explicit teaching or suggestion in the art to motivate one of even ordinary skill to combine such elements so as to create the same invention. *See Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957, 43 U.S.P.Q.2d 1294 (Fed. Cir. 1997).

Combination of *Sequeira* and *Liu*

First, no motivation exists for combining the teachings of *Sequeira* and *Liu*. These references are non-analogous art that are each attempting to solve a different problem. On one hand, *Sequeira* is concerned with receiving web pages and displaying such web pages on a display, such as a television screen. *Sequeira* explains at col. 2, lines 9-14:

Web pages are designed for displaying on PC monitors, not television sets. Thus, displaying such a page on a television screen generally results in poor image quality and navigating around the page and accessing the hypertext links for a page designed for display on a PC is nearly impossible.

Further, *Sequeira* explains that in a television broadcast environment, bandwidth is too limited for web content and client's associated with broadcast television are generally low-cost clients with limited processing power (CPUs) and limited memory. Thus, *Sequeira* provides a system in which a head-end device processes Internet content received and partitions the content, wherein each partition corresponds to a display (e.g., a television screen).

On the other hand, *Liu* is directed to Internet profiling, wherein Internet activity of users is tracked over time to develop a profile for each user that describes the interests of such user.

No motivation exists for one of ordinary skill in the art to look to these disparate reference teachings. That is, no motivation exists for one of ordinary skill in the art to look to the Internet profiling technique of *Liu* for a cache solution to be utilized in the system of *Sequeira*.

In response to the above arguments, the current Office Action asserts on page 3 thereof that all referenced prior art are content delivery and content manipulation systems operating within a web based network environment, and thus maintains that they are analogous art. Of course, if one defines the category of a given art broadly enough, everything can fall within such category and be considered analogous. While the *Sequeira* and *Liu* may be directed to content delivery, the respective problems on which each reference focuses and their respective teachings are so disparate that one of ordinary skill in the art

would not be motivated to look to their respective teachings, except if using impermissible hindsight to attempt to piece together the various elements claimed in the present application.

Further, the current Office Action also asserts on page 4 thereof:

The test of obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

This fails to address Applicant's arguments. Applicant is not arguing that the test for obviousness is whether a secondary reference may be bodily incorporated into the structure of the primary reference. Nor is Applicant arguing that the references must expressly suggest the claimed invention. Rather, Applicant argues that it is well settled that "There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination" and "[t]hat knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d 1443, 1447, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992). Applicant asserts that no such motivation is found here because the *Sequeira* and *Liu* references are non-analogous art that are each attempting to solve a different problem. No motivation exists for one of ordinary skill in the art to look to these disparate reference teachings. That is, no motivation exists for one of ordinary skill in the art to look to the Internet profiling technique of *Liu* for a cache solution to be utilized in the system of *Sequeira*.

Combination of *Carpentier* with *Sequeira* and *Liu*

Additionally, insufficient motivation exists for further combining *Carpentier* with *Sequeira* and *Liu* in the manner suggested by the Office Action.

The Office Action appears to suggest that *Sequeira* teaches a HTML source document that delimits content into various portions in that it describes, in a language understandable by the browser, the various elements (e.g., images, etc.) of the web page and an arrangement of such elements (e.g., in which order to display the images, etc. in the web page). The HTML source code includes "tags" that identify the various elements (e.g., image files, etc.)

that are to be presented on the web page. The web server also sends the elements (image files, etc.) to the client, and the browser executing on the client displays the elements in the arrangement dictated by the HTML source document.

The Office Action essentially relies upon a first reference, *Sequeira*, for teaching an HTML source document that has a plurality of elements of a web page. The Office Action further relies upon *Liu* as teaching that a document may be searched for in a memory cache. The Office Action finally relies upon *Carpentier* as teaching that an algorithm, such as MD5, can be used to generate a unique identifier for a file based on the file's content. Applicant concedes that these disparate elements are known.

However, one of ordinary skill in the art would not be motivated to combine these disparate teachings in the manner applied by the office action absent the use of impermissible hindsight in which the present application is used as a blue print to piece the elements together in the manner claimed.

"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." M.P.E.P. §2143.01. Here, no such suggestion of the desirability of combining these disparate teachings in the manner applied by the Office Action is present in the prior art. Further, a "statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." *Id.* Again, in this case, while the Office Action finds 3 disparate teachings of certain individual aspects of the claimed invention, no objective suggestion as to the desirability of combining the references in the manner suggested is provided in the references.

For instance, neither *Sequeira* nor *Carpentier* teach or suggest generating IUIs for each of the various elements of a HTML source document that describes a web page. Likewise, *Liu* provides no such teaching or suggestion. Further, neither *Liu* nor *Carpentier* teach or suggest using an IUI for performing a look up as recited by claim 1. Likewise, *Sequeira* provides no such teaching or suggestion. Again, absent impermissible hindsight, no

desirability for combining the disparate teachings of the references in the manner suggested by the Office Action is provided in the prior art.

In view of the above, no motivation exists for making the applied combination, and thus the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn for this further reason.

Independent Claim 22

Independent claim 22 recites:

An apparatus for delivery of content data comprising:
a source having a plurality stored pieces of content, the source for receiving requests for content, delimiting the pieces of content into portions, computing identifiers from said portions of content, and assigning said identifiers to the respective portions of content from which said identifiers are computed; and
a destination coupled to the source via a network, the destination for providing the requests for content, receiving the identifiers from the source in response to the requests and looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network. (Emphasis added).

A. Applied Combination Fails to Teach or Suggest All Elements of Claim 22

The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest all the above elements of claim 22. For instance, as discussed above with claim 1, the combination fails to teach or suggest “computing identifiers from said portions of content, and assigning said identifiers to the respective portions of content from which said identifiers are computed”, as well as “looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network”.

In view of the above, claim 22 is not obvious under 35 U.S.C. § 103(a) over the combination because the combination fails to teach or suggest all elements of claim 22.

B. Lack of Motivation to Combine the Applied References

Further, as discussed above with claim 1, insufficient motivation exists for combining the disparate teachings of *Sequeira*, *Liu*, and *Carpentier* in the manner applied by the Office Action. Thus, the rejection of claim 22 under 35 U.S.C. § 103(a) should be withdrawn.

Independent Claim 32

Independent claim 32 recites:

A method for content delivery, comprising:
requesting a piece of content;
delimiting the piece of content into one or more portions at a source;
associating an identifier with a selected one of the one or more portions
of the content; and
determining whether to send the selected one or more portions of
content or the identifier to the destination based on information at the source.
(Emphasis added).

A. Applied Combination Fails to Teach or Suggest All Elements of Claim 32

As an initial matter, the rejection is improper as it fails to even mention how, if at all, *Carpentier* is being applied to claim 32. Thus, Applicant submits that if a rejection of claim 32 is maintained, a new non-final Office Action should be provided to explain how *Carpentier* is being applied in the rejection of claim 32 in order to afford Applicant a full and fair opportunity to respond.

In any case, the rejection is also improper because the applied combination fails to teach or suggest all the above elements of claim 32. For instance, the combination fails to teach or suggest “determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source”, as discussed further below.

The Office Action treats claim 32 on pages 16-17 thereof, and in so doing appears to have failed to address the determining element of claim 32. For instance, the Office Action asserts on page 16 that *Sequeira* teaches “sending the identifier to a destination”, and asserts on page 17 that *Liu* teaches “looking up the identifier at the destination...” Applicant notes that these are not elements of claim 32. Applicant further notes that the Office Action fails to

address the actual recited element of “determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source”.

As mentioned above, *Carpentier* is not mentioned at all in the rejection of claim 32. Further, neither *Sequeira* nor *Liu* teach or suggest determining whether to send selected one or more portions of content or an identifier to a destination based on information at the source. For instance, in certain embodiments of the present invention, tag table 112 may be maintained at source 114 for determining whether to send selected one or more portions of content or an identifier to a destination 116. In *Sequeira*, no such determination is made. Rather, a requested web page is sent from web server 104 to head-end 122, which then partitions the web page into display partitions and corresponding partition IDs. No determination is made at the source as to whether to send selected one or more portions of content or an identifier to a destination. Additionally, no portions or identifiers are described in *Liu*, and no such determination is made by *Liu*'s system. Thus, the combination of *Sequeira* and *Liu* fails to teach or suggest this further element of claim 32.

In view of the above, claim 32 is not obvious under 35 U.S.C. § 103(a) over the combination of *Sequeira*, *Carpentier*, and *Liu* because the combination fails to teach or suggest all elements of claim 32.

B. Lack of Motivation to Combine the Applied References

Further, as discussed above with claim 1, insufficient motivation exists for combining the *Sequeira*, *Carpentier*, and *Liu* references in the manner applied by the Office Action. Thus, the rejection of claim 32 under 35 U.S.C. § 103(a) should be withdrawn.

Dependent Claims

In view of the above, Applicant respectfully submits that independent claims 1, 22, and 32 are patentable over the applied combination of *Sequeira*, *Carpentier*, and *Liu*. Further, each of dependent claims 2-5, 8-21, and 26-37 depend either directly or indirectly from one of independent claims 1, 22, and 32, and thus inherit all limitations of the respective independent claim from which they depend. It is respectfully submitted that dependent claims 2-5, 8-21, and 26-37 are allowable not only because of their dependency from their

respective independent claims for the reasons discussed above, but also in view of their novel claim features (which both narrow the scope of the particular claims and compel a broader interpretation of the respective base claim from which they depend).

III. 35 U.S.C. § 103 Rejections over *Sequeira*, *Carpentier*, *Liu* and *Marconcini*

Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of *Marconcini*. Claims 6 and 7 each depend either directly or indirectly from independent claim 1, and thus inherit all limitations of independent claim 1. As discussed above, Applicant respectfully submits that independent claim 1 is patentable over the rejection of record. *Marconcini* fails to correct the above-identified deficiencies in the rejection of claim 1. Thus, it is respectfully submitted that dependent claims 6-7 are allowable not only because of their dependency from independent claim 1 for the reasons discussed above, but also in view of their novel claim features (which both narrow the scope of the particular claims and compel a broader interpretation of claim 1 from which they depend).

IV. 35 U.S.C. § 103 Rejections over *Sequeira*, *Carpentier*, *Liu* and *Grove*

Claims 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of *Grove*. Claims 23-25 each depend either directly or indirectly from independent claim 22, and thus inherit all limitations of independent claim 22. As discussed above, Applicant respectfully submits that independent claim 22 is patentable over the rejection of record. *Grove* fails to correct the above-identified deficiencies in the rejection of claim 22. Thus, it is respectfully submitted that dependent claims 23-25 are allowable not only because of their dependency from independent claim 22 for the reasons discussed above, but also in view of their novel claim features (which both narrow the scope of the particular claims and compel a broader interpretation of claim 22 from which they depend).

V. Conclusion

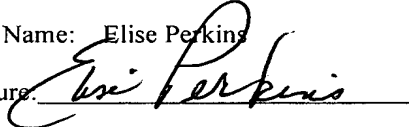
In view of the above amendment, Applicant believes the pending application is in condition for allowance.

The required fee for this response is enclosed. If any additional fee is due, please charge Deposit Account No. 08-2025, under Order No. 10016145-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Label No. EV568257326US in an envelope addressed to: MS Amendment, Commissioner for Patents, Alexandria, VA 22313.

Date of Deposit: April 18, 2006

Typed Name: Elise Perkins

Signature: 

Respectfully submitted,

By: 

Jody C. Bishop

Attorney/Agent for Applicant(s)

Reg. No. 44,034

Date: April 18, 2006

Telephone No. (214) 855-8007